

**Protocol
for
Incidental Take Authorization**

Winged Snaggletooth Snail (*Gastrocopta procera*)

Note

If carrying out a given protocol is not feasible, or multiple listed species in a given management area pose conflicts, contact the Bureau of Endangered Resources at 608/264-6057. Staff in BER will work with Integrated Science Services (Research) staff, species experts and managers to establish an acceptable protocol for a given site that will allow for incidental take without further legal Consultation or public notice

I. Species Background Information

A. Status

State status: Threatened

USFWS Region 3 Species of Management Concern: No

Number of Known Sites in Wisconsin: Occurs at 16 known sites in the hill prairies of the Driftless Area of Western Wisconsin (Buffalo, Crawford, Grant, LaCrosse, Pierce, Trempealeau, and Vernon Counties).

Global Range: Historically reported from localized populations in 23 states, current status or continued existence unknown in many of those populations, currently known from Central U.S. short- and tall-grass prairie states.

B. Habitat

General Habitat Description: Restricted to dry, open prairie habitats. Found only in hill or “goat” prairies with southern or western facing exposures, representative of a healthy, relatively undisturbed prairie remnant.

Critical habitat features: Preferred micro-habitat of this snail is in areas of accumulated litter (thatch) adjacent to and on rock outcrops in open prairies. The species is dependent

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on the accumulation of thatch and total destruction of all litter at a site is detrimental. Winged snaggleteeth populations are vulnerable to extinction in prairies that undergo successional change from herbaceous open areas to more woody vegetation or invasive woody species. Once tree canopy closes in on a former hill-prairie, the species disappears

The winged snaggleteeth does not survive in habitats having less than 160 frost free days (presumably the exposed south- and west-facing slopes of the goat prairies warm earlier in the spring, resulting in a longer frost free season.)

Over-wintering habitat: Overwinter onsite, adults bury deeper into the soil.

C. Life History

Number of generations per year: Eggs are laid in the late spring or early summer, may have single or more commonly multiple broods.

Over-wintering stage: Overwinter as adults.

Over-wintering location: Adults bury deeper in the soil to hibernate for winter.

Adults Active: Usually more active at night. Dormant in winter (November through March or early April); spring activity dependent on the temperatures of a particular year.

Single-Season Dispersal Ability: Ranges from very little to none.

Immature Seasonal Activity: Juveniles are more active than adults, active at night, and dormant in winter (November through March or early April). Spring activity depends on temperatures of a particular year.

II. Management Protocol For Authorized Incidental Take

If the management activity is for the purpose of recovering, maintaining or improving the prairie ecosystem that includes habitat for the Winged Snaggleteeth Snail, then incidental take is allowed if these conditions are followed:

Burning:

1. If burning from November 1 through March 30

Then it is assumed take will be minimal and there are no further restrictions on the activity.

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2. If burning from April 1 through October 31

Then areas of accumulated litter adjoining and on rock outcrops that likely harbor snaggleteeth snails either:

- a) must be subject only to low-intensity, patchy burning OR
- b) if subject to high-intensity burning, must be burned no more frequently than a fire-return interval of 3 years.

- B. Mowing/Haying:** Permitted to remove woody and invasive vegetation. Damage to soil and litter layer must be minimized. Hand mowing may be conducted annually, but heavy equipment should only be used if it is the only possible method to remove woody vegetation and should not be used annually.
- C. Selective Brush/Tree-cutting:** Permitted to remove woody and invasive vegetation. Damage to soil and litter layer must be minimized. Hand mowing may be conducted annually, but heavy equipment should only be used if it is the only possible method to remove woody vegetation and should not be used annually.
- D. Grazing:** Grazing may only be employed under consultation with BER.
- E. Herbicide Use:** Spot-application of herbicide for controlling woody vegetation or invasives is permitted. Care must be taken to contain herbicide use to woody or invasive vegetation. Damage to the soil and litter layer must be minimized.
- F. Vehicle Traffic:** Vehicular traffic is permitted for equipment deemed necessary for the management practices above. All other vehicle traffic may only be permitted under consultation with the DNR/BER.

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Presence/Absence Survey Protocol

If surveys are desired or deemed necessary; surveys shall be conducted by personnel adequately trained in the use of appropriate field sampling techniques, and experienced in winged snaggleteeth identification. Specific sampling locations will be selected by searching hill prairie sites to identify areas with living snails or fresh shells. Due to discrete localized populations, random sampling is not effective. Efforts should be concentrated on areas of accumulated litter on or adjacent to rock outcrops. Vegetative litter samples (0.5-2liters.sample) will be collected from appropriate sites and should include approximately 1cm of underlying surface soil. Samples will be taken to the laboratory for processing and identification of snail species by appropriate personnel.